

REMARKS

Reconsideration of the present application is respectfully requested.

Summary of Office Action

The specification stands objected to as failing to provide proper antecedent basis for the phrase "generating an encoded value" in claim 8.

Claims 4-6 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite.

Claim 8 stands rejected under 35 U.S.C. § 112, first paragraph, because the specification allegedly does not enable a person skilled in the art to make and use the claimed invention.

Claims 1-7, 9 and 50 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

Claims 1-13, 33-42 and 50 stand rejected under 35 U.S.C. § 102(e) based on U.S. Patent Application Publication no. 2002/0172203 of Ji et al. ("Ji").

Interview Summary

A telephonic interview was conducted between the Examiner and Applicant's representative (the undersigned) on 6/11/2008. Claims 1, 8 and 50 were discussed relative to the rejections under 35 U.S.C. §§ 102, 112(1) and 101, respectively. No particular agreement reached.

Summary of Amendments

Claims 13-32 and 43-49 were previously canceled. In this amendment, claim 34 has been canceled. Claims 1, 4, 33 and 50 have been amended. Claims 51-54 are newly added. No new matter has been added.

Discussion of New Claims

First, it should be noted that there are at least two aspects of present invention, i.e., an aspect that relates to a server on a content distribution network, and an aspect that relates to an agent on the content distribution network. These two aspects are complementary, i.e., the agents and server cooperate with each other to perform the overall technique disclosed in Applicants' specification.

New claims 51-53 (like original claims 1, 33 and 50) relate to the agent aspect of the invention (e.g., a method performed by an agent). New claim 54 relates to the server aspect of the invention. Applicant respectfully submits, however, that all these new claims should be entered, and that a restriction/election requirement would not be proper as to claim 54 because the server aspect is complementary to the agent aspect covered in the other claims.

Objection Specification

The specification stands objected to as failing to provide proper antecedent basis for the phrase "generating an encoded value" in claim 8. Applicants respectfully direct the Examiner's attention to paragraph [0025] of the specification, which clearly provides enabling support for the above-mentioned limitation. See also paragraphs [0026] –

[0033], which provides additional disclosure related to that limitation. Applicants therefore respectfully submit that the objection is improper and should be withdrawn.

Section 112(2) Rejection

Claims 4-6 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Applicant has amended claim 4 and respectfully submits that the rejection thereby has been overcome.

Section 112(1) Rejection

Claim 8 stands rejected under 35 U.S.C. § 112, first paragraph, because the specification allegedly does not enable a person skilled in the art to make and use the claimed invention, specifically with regard to the phrase "generating an encoded value". Applicants respectfully direct the Examiner's attention to paragraph [0025] of the specification, which clearly provides enabling support for the above-mentioned limitation. See also paragraphs [0026] – [0033], which provides additional disclosure related to that limitation. Applicants therefore respectfully submit that the rejection is improper and should be withdrawn.

Section 101 Rejection

Claims 1-7, 9 and 50 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Regarding claim 1, Applicant respectfully submits that the above amendments overcome this rejection. In particular, claim 1 has been amended to include the limitation of "transmitting the data structure to a remote server configured to

use the data structure to redirect content requests from the clients". This limitation represents a practical application with a useful, concrete and tangible result.

As to independent claim 50, Applicants respectfully submit that the rejection is improper. First, note that each of the elements and claim 50 is recited in "means for" format, which falls under 35 U.S.C. § 112, sixth paragraph. Such limitations are interpreted to cover the corresponding structure and/or material described in the specification for performing the recited functions, and equivalents thereof. 35 U.S.C. § 112(6). The PTO may not disregard the structure disclosed in the applicant's specification corresponding to such language when rendering a patentability determination. *In re Donaldson Co.*, 16 F.3d 1189, 1194-95, 29 USPQ2d 1845, 1850 (Fed. Cir. 1994). See also MPEP 2181.

Applicants' specification clearly discloses a computer system that can perform the functions recited in claim 50. The computer system is described and illustrated as including a processor and memory (among other components) coupled through a bus system (see Figure 5 and paragraphs [0054] – [0057]). A computer is a machine, which is statutory subject matter under 35 USC section 101.

If the Office is taking the position that the elements of claim 50 read on software *per se* and that software *per se* is not patentable, then Applicants respectfully respond that software *per se* is not capable of performing any function by itself; it is only when a processor executes the software that a function is performed. Consequently, the Office cannot interpret claim 50 as covering pure software. Furthermore, the courts have made clear that in a means-plus-function claim in which the disclosed structure is a computer or microprocessor programmed to carry out an algorithm, the disclosed structure is

interpreted to be the computer programmed to perform the disclosed algorithm; the structure is not the algorithm itself or software per se. See *WMS Gaming Inc. v. Int'l. Game Technology*, 184 F.3d 1339, 1349 (Fed. Cir. 1999)(emphasis added). Therefore, Applicant respectfully submits that the rejection is improper as to claim 50 and should be withdrawn.

Section 102 Rejection

Claims 1, 33, 50, 51 and 53

Claim 1, as amended, recites:

1. (Currently amended) A method comprising:
storing in a data structure information representing a plurality of clients on a network, the data structure including network addresses of the clients **and network proximity measurements** for the clients;
dynamically and losslessly compressing the data structure **based on the network addresses and the network proximity measurements in the data structure**; and
transmitting the data structure to a remote server **configured to use the data structure to redirect content requests** from the clients.
(Emphasis added.)

Ji does not disclose or suggest such a method. First, Ji does not disclose or suggest transmitting a data structure to a remote server that is configured to use the data structure to redirect content requests from a plurality of clients. Ji is directed to optimizing storage of message routing tables (e.g., "next hop" information) within Internet routers, i.e., information which a router uses to determine the next device to which a received message should be forwarded. In contrast, the present invention is generally directed toward reducing storage, within different elements of a content distribution network, of network proximity information used by a server to redirect (not

forward) client content requests. At least because Ji does not disclose or suggest redirection of client content requests, claim 1 is thought to be patentable over cited art.

Second, Ji does not disclose or suggest acquiring network proximity measurements, much less using such measurements as a basis (at least partially) for compressing a data structure of client information, including network addresses and the network proximity measurements. Ji does disclose storing IP subnet addresses in a table. But assuming *arguendo* the Office interprets subnet information as an indication of proximity, IP subnet addresses are not proximity measurements, nor are they any suggestion of using proximity measurements. The lack of any disclosure in Ji of proximity measurements should not be surprising, since Ji is not concerned at all with efficiency of content distribution, as is the system to which the present invention pertains.

For at least the foregoing reasons, claim 1 and all claims which depend on it are thought to be patentable over the cited art. Independent claims 33, 50, 51 and 53 include limitations similar to those discussed above regarding claim 1 and, therefore, are also thought to be patentable over the cited art along with their dependent claims.

Claims 51 and 53

New claim 51 recites limitations similar to those discussed above regarding claim 1 and, therefore, are also thought to be patentable over the cited art along with its dependent claims.

In addition, claim 51 also recites:

detecting when proximity **measurements** for at least two clients which share a network address prefix **are within a predetermined time range of each other**, and

in response to detecting the proximity measurements being within the predetermined range of each other for the at least two clients,

merging entries for the at least two clients in the data structure . . .
(Emphasis added.)

Ji also does not disclose or suggest detecting when proximity measurements for at least two clients which share a network address prefix are within a predetermined time range of each other, or merging entries in a data structure based on such detection. Therefore, claimed 51 and all claims which depend on it are thought to be further patentable over the cited art for this additional reason.

Claim 53 includes limitations similar to those in claims 1 and 51 discussed above, as well as additional limitations. Therefore, claim 53 is thought to be patentable over the cited art for at least similar reasons to those discussed above regarding claims 1 and 53.

Claim 54

Claim 54 relates to the server aspect of the present invention. It recites:

54. (New). A method comprising:
receiving at a server, from a remote network agent, information relating to a plurality of clients on a network, the information including a plurality of network addresses **and a corresponding plurality of masks, each of the network addresses representing one or more of the clients, at least one of the masks being indicative of compression of the corresponding received information for a corresponding two or more of the plurality of clients, said compression having been performed by the remote network agent based on network proximity measurements for the corresponding two or more of the plurality of clients;**
storing the received information relating to the plurality of clients in a data structure; and
using the data structure at the server **to redirect content requests from the clients.** (Emphasis added.)

Ji does not disclose or suggest such a method. In particular, Ji does not disclose or suggest redirecting content requests from clients. As discussed above, Ji relates to the

operation of routers, and in particular, routing tables for forwarding messages on a network.

Furthermore, Ji does not disclose or suggest that such redirection may be based on a data structure that created from information received from a remote network agent, where that received information includes a plurality of network addresses and a corresponding plurality of masks, each of the network addresses representing one or more of the clients, at least one of the masks being indicative of compression of the corresponding received information for a corresponding two or more of the plurality of clients, said compression having been performed by the remote network agent based on network proximity measurements for the corresponding two or more of the plurality of clients. Therefore, claim 54 is thought to be patentable over the cited art.

Applicants have not necessarily discussed here every reason why every pending independent claim is patentable over the cited art; nonetheless, Applicants are not waiving any argument regarding any such reason or reasons. Applicants reserve the right to raise any such additional argument(s) during the future prosecution of this application, if Applicants deem it necessary or appropriate to do so.

Dependent Claims

In view of the above remarks, a specific discussion of the dependent claims is considered to be unnecessary. Therefore, Applicants' silence regarding any dependent claim is not to be interpreted as agreement with, or acquiescence to, the rejection of such claim or as waiving any argument regarding that claim.


Conclusion

For the foregoing reasons, the present application is believed to be in condition for allowance, and such action is earnestly requested.

If there are any additional charges, please charge Deposit Account No. 50-2207.

Respectfully submitted,
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